National Institute of Environmental Health Sciences

Climate change and mosquito-borne diseases in China: A review

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Abstract:

China has experienced noticeable changes in climate over the past 100 years and the potential impact climate change has on transmission of mosquito-borne infectious diseases poses a risk to Chinese populations. The aims of this paper are to summarize what is known about the impact of climate change on the incidence and prevalence of malaria, dengue fever and Japanese encephalitis in China and to provide important information and direction for adaptation policy making. Fifty-five papers met the inclusion criteria for this study. Examination of these studies indicates that variability in temperature, precipitation, wind, and extreme weather events is linked to transmission of mosquito-borne diseases in some regions of China. However, study findings are inconsistent across geographical locations and this requires strengthening current evidence for timely development of adaptive options. After synthesis of available information we make several key adaptation recommendations including: improving current surveillance and monitoring systems; concentrating adaptation strategies and policies on vulnerable communities; strengthening adaptive capacity of public health systems; developing multidisciplinary approaches sustained by an new mechanism of inter-sectional coordination; and increasing awareness and mobilization of the general public.

Source: http://www.ncbi.nlm.nih.gov/pmc/articles/PMC3605364

Resource Description

Communication: ☑

resource focus on research or methods on how to communicate or frame issues on climate change; surveys of attitudes, knowledge, beliefs about climate change

A focus of content

Communication Audience: ☑

audience to whom the resource is directed

Health Professional, Public

Exposure : ☑

weather or climate related pathway by which climate change affects health

Extreme Weather Event, Precipitation, Temperature

Temperature: Extreme Heat, Fluctuations

Geographic Feature: ☑

resource focuses on specific type of geography

Mountain, Tropical, Urban

Geographic Location: ☑

resource focuses on specific location

Non-United States

Non-United States: Asia

Asian Region/Country: China

Health Impact: ☑

specification of health effect or disease related to climate change exposure

Infectious Disease

Infectious Disease: Vectorborne Disease

Vectorborne Disease: Mosquito-borne Disease

Mosquito-borne Disease: Dengue, Malaria, Viral Encephalitis

Intervention: ☑

strategy to prepare for or reduce the impact of climate change on health

A focus of content

Medical Community Engagement: ☑

resource focus on how the medical community discusses or acts to address health impacts of climate change

A focus of content

Mitigation/Adaptation: ☑

mitigation or adaptation strategy is a focus of resource

Adaptation

Resource Type: ☑

format or standard characteristic of resource

Research Article, Review

Timescale: ☑

time period studied

Time Scale Unspecified

Vulnerability/Impact Assessment: ☑

resource focus on process of identifying, quantifying, and prioritizing vulnerabilities in a system

A focus of content